

State University of New York at Albany
ACC 661 Auditing of Advanced Accounting Information Systems
Class Time: M / W 11:30 AM - 12:50 PM; Room: BA229

Instructor: Christopher Brown
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Office Hours: M (2-4), TH (11-12),
Or by appointment

1. WELCOME

In this course we will examine the information security technologies necessary for auditing complex accounting information systems. Various topics will be covered and the pace of the class will be rather fast so it is important to keep up with assignments and readings.

To help you understand the various topics, lectures will be complemented with assignments, lab exercises, class discussions, and videos. It is the instructor's hope that class lectures will evolve into class discussions.

2. COURSE OBJECTIVES

- Understanding of the technologies underlying security on the Internet
- Understanding of security modeling
- Understanding of methods for the detection of intruders and methods for gathering audit data for security
- Understanding of tools available for security audits and their use

3. REQUIRED TEXT BOOK

Security in Computing (4th edition) by Charles P. Pfleeger & Shari Lawrence Pfleeger
ISBN: 0132390779

4. REFERENCE BOOKS

Computer Security by Dieter Gollmann
Counter Hack Reloaded (2nd edition) by Ed Skoudis with Tom Liston
Cryptography Decrypted by H.X. Mel and Doris Baker
Network Security: Private Communication in a Public World (2nd edition) by Charlie Kaufman, Radia Perlman, and Mike Speciner
Secrets & Lies by Bruce Schneier
Secure Electronic Commerce (2nd edition) by Warwick Ford and Michael S. Baum
TCP/IP JumpStart: Internet Protocol Basics (2nd edition) by Andrew G. Blank

5. COURSE CONDUCT / GRADING

This course will consist of lectures, assignments, and a group project (and presentation). The group project will entail further investigation of a topic discussed in class. Project topics must be approved by the instructor and will be assigned on a "first come, first served" basis, so if there is a topic which your group would like to present, contact the instructor as soon as possible.

Groups will consist of 2 or 3 students (at the most). Students will be given the opportunity to select their own group, but the instructor reserves the right to intervene if necessary.

Grading

Students will be arranged in descending order of total points. The letter grade for each student is therefore determined relative to the rest of the class.

200 points: Final exam

200 points: Group project and presentation

100 points: Quizzes

80 points: Homework assignments

20 points: Class participation

Extra points cannot be earned through extra assignments.

Final Exam

The final exam will be open book and will test your understanding of lecture material, readings, and assignments, and will include topics from the entire semester (i.e. cumulative).

Group Project

Each group will further investigate a topic discussed in class or a related topic. A paper and presentation will be required. The paper will be graded on the basis of content and grammar, and is due on the final day of class. Presentations will be delivered during class time and are expected to run between 10 and 15 minutes each.

Quizzes

2 quizzes will be administered during class. These quizzes will be closed book and will consist of closed-ended questions (multiple choice, true/false, etc). Questions will be derived from lectures, readings, and assignments.

Homework Assignments

Homework will be assigned throughout the semester. Currently, 4 homework assignments are planned. Homework assignments will be assigned no less than one week before the scheduled due date. The instructor reserves the right to add assignments as the semester progresses. While homework is to be done individually and should represent your own work, you are encouraged to discuss the assignments with other students. Late homework submissions will not be evaluated and missed assignments cannot be made up.

Class Participation

Questions will be asked during class. Students are strongly encouraged to participate in class discussions. Homework assignments will also be reviewed in class (after submittal) and offer a good opportunity to participate.

6. TENTATIVE SCHEDULE

Date	Topic	Readings	Assignment Due
1/22	Course / Syllabus overview		
1/24	Introduction - What is computer security?	Chapter 1	
1/29	Access Control - Identification & Authentication / Object, Subjects, & Operations	Chapter 4 - Section 1, 3, 4, 5	
1/31	Security Models & Policies	Chapter 5 - Sections 1:3	
2/5	UNIX Security / Homework Discussion		Assignment 1
2/7	Windows Security		
2/12	Program Security	Chapter 3	
2/14	Program Security	Chapter 3	
2/19	Winter Break		
2/21	Winter Break		
2/26	Cryptography - Basics, Secret Key, & Public Key	Chapter 2 - Sections 1:7	
2/28	Cryptography - Message Digests & Digital Certificates	Chapter 2 - Section 8	
3/5	Cryptography - PKI & PGP / Homework Discussion		Assignment 2
3/7	Quiz		
3/12	PGP lab		
3/14	Network Security - Concepts & Threats	Chapter 7 - Sections 1:2	
3/19	Network Security - Threats & Controls	Chapter 7 - Section 3	
3/21	Network Security - Controls	Chapter 7 - Sections 4:6	
3/26	Database Security / Homework Discussion	Chapter 6	Assignment 3
3/28	Database Security	Chapter 6	Group Project Topic

4/2	Spring Break		
4/4	Spring Break		
4/9	Spring Break		
4/11	Security Planning & Risk Analysis	Chapter 8	
4/16	Risk Analysis Exercise		
4/18	Quiz		
4/23	Privacy in Computing / Homework Discussion	Chapter 10	Assignment 4
4/25	Privacy in Computing / Ethics in Computing	Chapter 11	
4/30	Presentations		
5/2	Presentations		
5/7	Final Exam Review		